

#4

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Markus PROBST

Art Unit:

Application No: 09/811,059

Examiner:

Filed: March 15, 2001

For: APPARATUS FOR MEASURING SCATTERED
RADIATION

PRELIMINARY AMENDMENT

Commissioner for Patents
Washington, D.C. 20231

Sir:

Please make the following amendments to this application prior to examination thereof.

AMENDMENTS

In the Claims:

Claims 3-14, cancel.

Add new claims as follows:

15. (New) The apparatus of claim 1, wherein, the deflection element (8, 9) is comprised of a reflecting prism.

16. (New) The apparatus of Claim 15, wherein, the reflecting prism (8, 9) has a radiation entry/exit surface (10) which is configured as a nonplanar aspherical surface in the deflection element.

17. (New) The apparatus of claim 1, wherein, the optical deflection element (8, 9) has an entry surface/exit surface (10) that is disposed in such a way that the center beam enters/exits perpendicularly, and a deflection surface that is disposed in such a way that the center beam is reflected in the interior of the deflection element.

18. (New) The apparatus of Claim 17, wherein the entry surface/exit surface (10) is curved in such a way that the beams emitted by the sender or leaving the deflection element travel in the deflection element parallel to the optical axis of the surface.

19. (New) The apparatus of Claim 17, wherein total reflection is achieved at the deflection surface by properly selecting the angle of incidence (θ) and the material.

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20. (New) The apparatus of Claim 17, wherein the entry surface/exit surface (10) is a spherical surface.

21. (New) The apparatus of claim 1, wherein the deflection element (8, 9) is provided to achieve parallel alignment and deflection of the emitted beam/incident scattered beam.

22. (New) The apparatus of claim 1, wherein the surfaces of the optical deflection elements are comprised of a circular cylindrical or spherical surface and of flat surfaces.

23. (New) The apparatus of claim 1, wherein the optical deflection element (8, 9) is disposed directly on the separator (10).

24. (New) The apparatus of claim 1, wherein the optical deflection elements and the separator are configured as units that are connect to one another or comprise an integral part.

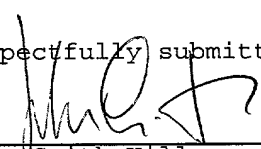
25. (New) The apparatus of claim 1, wherein the sender (1) and detector (2) are not disposed in the same plane as the optical deflection elements (8) and (9) (Figure 4).

26. (New) The apparatus of claim 1, wherein the sender (1), receiver (2) and the optical components (8, 9) lie in the same plane, and the light paths cross (Figure 5).

REMARKS

The above amendments are presented in order to place this application in better condition for examination.

Respectfully submitted,



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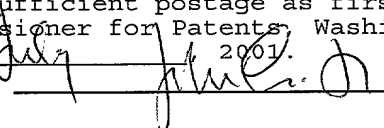
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